CLAIMS

We claim:

1.   A method for device management in a grouped server system, comprising:

a service creating a request for a device;

a first device manager in a first server transferring said request to a second device manager in a second server, said first device manager being coupled to said service;

said second device manager allocating said device to said service;

said second device manager informing said first device manager of said allocation.

2.   The method of claim 1, wherein said request comprises desired device capabilities.

3.   The method of claim 1, wherein said first server and said second server operate in a group, further comprising:

establishing a first communication path between said first device manager and said second device manager; and

establishing a second communication path between a desktop unit and said second device manager, said device being coupled to said desktop unit.

4.   The method of claim 3, wherein said establishing a first communication path comprises receiving a group list, said group list comprising server information of servers in said group.

5.   The method of claim 3, wherein said establishing a second communication path comprises said desktop unit arbitrarily connecting to said second device manager.

6.   The method of claim 1, further comprising:

said first device manager creating a first device list; and

said second device manager creating a second device list.

7.   The method of claim 6, wherein said first device list comprises device records for devices said first device manager manages.

8.   The method of claim 6, wherein said first device list comprises device records for devices managed by said first device manager and peer device managers in said grouped server system.

9.   The method of claim 8, wherein said grouped server system comprises a plurality of device managers and a plurality of desktop units coupled to an interconnect, further comprising identifying which device manager manages which device.

10.   The method of claim 1, further comprising said first device manager creating a finder in accordance with said request.

11.   The method of claim 10, further comprising searching a first device list coupled to said first device manager for a device matching said finder.

12.   The method of claim 11, further comprising storing said finder in said first server.

13.   The method of claim 1, further comprising transferring said request to said second device manager, said second device manager creating a finder in accordance with said request.

14.   The method of claim 13, further comprising searching a device list coupled to said second device manager for a device matching said finder.

15. The method of claim 13, further comprising storing said finder in said second server.

16. The method of claim 1, further comprising:
   determining which device manager manages said device; and
   informing said service of said managing device manager.

17. The method of claim 16, further comprising said service requesting allocation of said device.

18. The method of claim 1, further comprising time-stamping a message generated at a desktop unit, said desktop unit being coupled to said device.

19. The method of claim 18, wherein said time-stamping is when said messages are being generated.

20. The method of claim 18, further comprising maintaining a universal clock among all servers in said grouped server system, said time-stamping being based on said universal clock.

21. A method for device management in a grouped server system, comprising:
   a service generating a request for a device;
   determining which device manager manages said device;
   forwarding said request to said device manager that manages said device; and
   allocating said device to said service in response to said request.

22. The method of claim 21, wherein said device manager that manages said device is located in a first server and said service is located in a second server.

23. The method of claim 22, wherein said first server comprises a first device list, said first device list comprising a device record for said device, further comprising:

transferring said device record to a second device manager in said second server; and

said second device manager updating a second device list to include said device record.

24. The method of claim 23, further comprising:

matching said request with said device record in said second device list; and

determining said device manager that manages said device from said second device list.

25. The method of claim 21, further comprising informing a peer of said allocation.

26. The method of claim 21, further comprising time-stamping a device report generated by a desktop unit coupled to said device.

27. The method of claim 21, further comprising said device manager creating a finder from said request and storing said finder locally.

28. A method for data distribution among servers in a grouped server system, said grouped server system comprising a plurality of servers operating in a group and a plurality of desktop units coupled via an interconnect, each of said servers comprising a device manager, comprising said device managers brokering devices coupled to said desktop units to at least one service remotely.

29. The method of claim 28, comprising establishing a communication path between each pair of said device managers in said group.

30.   The method of claim 28, comprising establishing a communication path between each desktop unit and one device manager.

31.   The method of claim 28, comprising generating a device list for each device manager.

32.   The method of claim 31, wherein said device list comprises devices a device manager manages.

33.   The method of claim 32, wherein said device list further comprises devices peer device managers manage, further comprising transferring device data between device managers.

34.   The method of claim 28, further comprising creating finders in accordance with said services.

35.   A method for data distribution in a grouped server system, comprising maintaining a persistent connection between a desktop unit and a single device manager.

36.   The method of claim 35, further comprising:

establishing a first communication path between a desktop unit and a first device manager; and

terminating said first communication path and establishing a second communication path between said desktop unit and a second device manager when an event occurs.

37.   The method of claim 36, wherein said event comprises resetting said desktop unit.

38.   The method of claim 36, wherein said event comprises failure of said first

device manager.

39. A grouped server system, comprising:

a plurality of servers, each server having a device manager for brokering devices to services;

a plurality of desktop units, each desktop unit being coupled to one of said device managers, said servers and said desktop units being coupled to an interconnect; and

at least one device coupled to one of said desktop units.

40. The grouped server system of claim 39, wherein said device manager is coupled to a device list.

41. The grouped server system of claim 40, wherein said device list comprises device data of devices managed by said device manager.

42. The grouped server system of claim 40, wherein said device list comprises device data of devices managed by peers of said device manager.

43. The grouped server system of claim 39, further comprising a universal time clock for time-stamping messages indicating which device manager is managing which desktop unit.

44. A server, comprising a device manager for brokering a device managed by said device manager to a service coupled to a peer device manager.

45. The server of claim 44, further comprising a device list, said device list comprising device data of devices managed by peers.

46. The server of claim 44, further comprising a finder, said finder comprising

scoping rules from said service.

47. The server of claim 44, further comprising a device service coupled to said device manager via a first communication path, said first communication path transferring device reports and allocation requests.

48. The server of claim 47, wherein said device service is coupled to a desktop unit via a second communication path, said second communication path transferring device data.

49. The server of claim 44, wherein said device manager is coupled to a desktop unit via a communication path, said communication path transferring device reports and allocation requests.

50. A device manager for providing a device driver for a device managed by other device managers in a grouped server system, said device manager maintains a first database comprising device data and a second database comprising scoping rules from a service, said device manager searches for a match between said first database and said database and forwards a request to other device managers if no match is found.

51. A computer readable medium for implementing an instruction set for brokering a device coupled to a first device manager to a service coupled to a second device manager, said first device manager and said second device manager operating in a group.